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Atty. Dkt. No. 036481-0164

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Chris Robert LIVELY et al.

Title: NUCLEIC ACID COATED  
PARTICLES

Appl. No.: 10/529,010

Filing Date: 3/24/2005

Examiner: Unassigned

Art Unit: 1645

**INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 CFR §1.56**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Submitted herewith on Form PTO/SB/08 is a listing of documents known to Applicants in order to comply with Applicants' duty of disclosure pursuant to 37 CFR §1.56.

A copy of each non-U.S. patent document and each non-patent document is being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

**TIMING OF THE DISCLOSURE**

The listed documents are being submitted in compliance with 37 CFR §1.97(b), before the mailing date of the first Office Action on the merits.

**RELEVANCE OF EACH DOCUMENT**

All of the documents are in English.

Applicants respectfully request that each listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 CFR §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741.

Respectfully submitted,

Date

February 28, 2006

By

Richard C. Peet

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Substitute for form 1449B/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> Date Submitted: <b>FEB 28 2006</b> (use as many sheets as necessary)				<b>Complete if Known</b>	
Sheet 1 of 3		Application Number		10/529,010	
		Filing Date		3/24/2005	
		First Named Inventor		Chris Robert LIVELY	
		Group Art Unit		Unassigned	
		Examiner Name		Unassigned	
		Attorney Docket Number		036481-0164	

FIRE  
 FEB 28 2006  
 U.S. PATENT & TRADEMARK OFFICE

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
	B1	5,120,657	A	McCABE et al.	06/09/1992	
	B2	5,149,655	A	McCABE et al.	09/22/1992	
	B3	5,183,658	A	LEE et al.	02/02/1993	
	B4	5,630,796	A	BELLHOUSE et al.	05/20/1997	
	B5	5,865,796	A	McCABE, Dennis E.	02/02/1999	
	B6	5,945,400	A	SCHERMAN et al.	08/31/1999	
	B7	6,264,990	B1	KNEPP et al.	07/24/2001	
	B8	6,200,956	B1	SCHERMAN et al.	03/13/2001	

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
	B9	WO	94/24263	A1	Oxford Biosciences Ltd	10/27/1994		
	B10	WO	96/04947	A1	Oxford Biosciences Ltd	02/22/1996		
	B11	WO	96/12513	A1	Oxford Biosciences Ltd	05/02/1996		
	B12	WO	96/20022	A1	Oxford Biosciences Ltd	07/04/1996		
	B13	WO	96/25508	A1	Rhone-Poulenc Rorer S.A.	08/22/1996		A
	B14	WO	97/40839	A1	Merck & Co., Inc.	11/06/1997		
	B15	WO	00/02591	A1	Merck & Co., Inc.	01/20/2000		

Examiner Signature	Date Considered	
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<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

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		<b>Group Art Unit</b>	Unassigned
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		<b>Attorney Docket Number</b>	036481-0164
Sheet	2	of	3

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
	B16	ADAMI et al., "Stability of Peptide-Condensed Plasmid DNA Formulations," Research Articles, Vol. 87, No. 6, June 1998, pp. 676-683.	
	B17	ALMIRÓN et al., "A novel DNA-binding protein with regulatory and protective roles in starved <i>Escherichia coli</i> ," Genes & Development, Vol. 6, 1992, pp. 2646-2654.	
	B18	AMAO et al., "The hydrophobic and electrostatic effect of basic polyamino acid-DNA polyion complex on artificial bilayer lipid membrane," Nucleic Acids Symposium Series No. 29, 1993, pp. 149-151.	
	B19	ANDREASSON et al., "Interactions of Spermidine and Methylspermidine with DNA Studied by Nuclear Magnetic Resonance Self-Diffusion Measurements," Biophysical Journal, Vol. 70, June 1996, pp. 2847-2856.	
	B20	AZAM et al., "Twelve Species of the Nucleoid-associated Protein from <i>Escherichia coli</i> ," The Journal of Biological Chemistry, Vol. 274, Vol. 46, November 12, 1999, pp. 33105-33113.	
	B21	BAEZA et al., "Possible prebiotic significance of polyamines in the condensation, protection, encapsulation, and biological properties of DNA," Origins of Life and Evolution of the Biosphere, Vol. 21, 1992, pp. 225-242.	
	B22	BLOOMFIELD, Victor A., "Condensation of DNA by Multivalent Cations: Considerations on Mechanism," Biopolymers, Vol. 31, 1991, pp. 1471-1481.	
	B23	CHO et al., "Activation of human neutrophils by a synthetic anti-microbial peptide, KLKLLLLLKLK-NH <sub>2</sub> , via cell surface calreticulin," Eur. J. Biochem., Vol. 266, 1999, pp. 878-885.	
	B24	DELONG et al., "Novel cationic amphiphiles as delivery agents for antisense oligonucleotides," Nucleic Acids Research, Vol. 27, No. 16, 1999, pp. 3334-3341.	
	B25	DENG et al., "Structural Effects of cobalt-Amine Compounds on DNA Condensation," Biophysical Journal, Vol. 77, September 1999, pp. 1556-1561.	
	B26	EMI et al., "Gene Transfer Mediated by Polyarginine Requires a Formation of Big Carrier-Complex of DNA Aggregate," Biochemical and Biophysical Research Communications, Vol. 231, 1997, pp. 421-424.	
	B27	FANG et al., "Ethanol-induced structural transitions of DNA on mica," Nucleic Acids Research, Vol. 27, No. 8, pp. 1943-1949.	
	B28	FANG et al., "Early Intermediates in Spermidine-Induced DNA Condensation on the Surface of Mica," Journal of the American Chemical Society, Vol. 120, No. 35, September 9, 1998, pp. 8903-8909.	
	B29	GOSULE et al., "DNA Condensation with Polyamines. I. Spectroscopic Studies," J. Mol. Biol., Vol. 121, 1978, pp. 311-320.	

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	B30	JUNGHANS et al., "Phosphodiester and phosphorothioate oligonucleotide condensation and preparation of antisense nanoparticles," Biochimica et Biophysica Acta, Vol. 1544, 2001, pp. 177-188.		
	B31	LIQUIER et al., "Infrared Linear Dichroism Investigations of Deoxyribonucleic Acid Complexes with Poly(L-arginine) and Poly(L-lysine)," Biochemistry, Vol. 14, No. 19, 1975, pp. 4191-4197.		
	B32	MARTINEZ et al., "Protection of DNA during Oxidative Stress by the Nonspecific DNA-Binding Protein Dps," Journal of Bacteriology, August 1997, pp. 5188-5194.		
	B33	McKENZIE et al., "Comparative gene transfer efficiency of low molecular weight polylysine DNA-condensing peptides," J. Peptide Res., Vol. 54, 1999, pp. 311-318.		
	B34	MURPHY et al., "A combinatorial approach to the discovery of efficient cationic peptoid reagents for gene delivery," Proc. Natl. Acad. Sci. USA, Vol. 95, February 1998, pp. 1517-1522.		
	B35	PARK et al., "Topological Defects and the Optimum Size of DNA Condensates," Biophysical Journal, Vol. 75, August 1998, pp. 714-720.		
	B36	PHILLIPS, Stephen C., "Receptor-mediated DNA Delivery Approaches to Human Gene Therapy," Biologicals, Vol. 23, 1995, pp. 13-16.		
	B37	POUTON et al., "Polycation-DNA complexes for gene delivery: a comparison of the biopharmaceutical properties of cationic polypeptides and cationic lipids," Journal of Controlled Release, Vol. 53, 1998, pp. 289-299.		
	B38	RAMSAY et al., "Examination of the biophysical interaction between plasmid DNA and the polycations, polylysine and polyornithine, as a basis for their differential gene transfection in-vitro," International Journal of Pharmaceutics, Vol. 210, 2000, pp. 97-107.		
	B39	SCHMIDT et al., "Cell-free tumor antigen peptide-based cancer vaccines," Proc. Natl. Acad. Sci. USA, Vol. 94, April 1997, pp. 3262-3267.		
	B40	WOLF et al., "DNA protection by stress-induces biocrystallization," Letters to Nature, Vol. 400, July 1, 1999, pp. 83-85.		
	B41	YANG et al., "In vivo and in vitro gene transfer to mammalian somatic cells by particle bombardment," Proc. Natl. Acad. Sci. USA, Vol. 87, December 1990, pp. 9568-9572.		
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